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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/047,032	01/15/2002	Andreas Johannes Gerrits	NL 010054	4253

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EXAMINER

HARPER, V PAUL

ART UNIT PAPER NUMBER

2654

DATE MAILED: 10/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/047,032	<b>Applicant(s)</b> GERRITS, ANDREAS JOHANNES	
	<b>Examiner</b> V. Paul Harper	<b>Art Unit</b> 2654	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |  |
|---|--|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1, 2, 4-6, 8-10, 12-14, 16-18, and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Chai (U.S. Patent 6,137,915), hereinafter referred to as Chai.

Regarding **claims 1, 5, 9, 13, and 17**, Chai discloses an apparatus and method for error concealment for hierarchical subband coding and decoding. Chai's system includes the following:

- a transmitter for transmitting an input signal to a receiver via a transmission channel (Fig. 2, item 250; col. 4, lines 14-22),
- the transmitter comprising a splitter for splitting up a single input signal on a single input line into at least first and second frequency band signals (Fig. 2, items 220<sub>1</sub>, 220<sub>2</sub>, ...220<sub>n</sub>; col. 3, lines 28-35, lines 53-64, where the audio input is optional—"may include ..."),

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- the transmitter further comprising a first encoder for encoding the first frequency band signal into a first encoded frequency band signal and a second encoder for encoding the second frequency band signal into a second encoded frequency band signal (Fig. 2, abstract, subband coding; col. 3, lines 28-33, lines 53-64),
- the transmitter being arranged for transmitting the first and second encoded frequency band signals via the transmission channel to the receiver (Fig. 2, items 240 and 245),
- the receiver comprising a first decoder for decoding the first encoded frequency band signal into a first decoded frequency band signal and a second decoder for decoding the second encoded frequency band signal into a second decoded frequency band signal (Fig. 2, items 260, 270, and 290; col. 4, lines 14-21, elementary streams),
- the receiver further comprising a combiner for combining the first and second decoded frequency band signals into an output signal (Fig. 2, items 270, 275, 290, 295; col. 4, lines 14-22),
- the receiver further comprising reconstruction means for reconstructing the second decoded frequency band signal when the second decoded frequency band signal is not available, characterised in that the reconstruction means are arranged for reconstructing the second decoded frequency band signal from the first decoded frequency band signal (Fig. 5, col. 4, lines 30-42; col. 5, lines 9-27; corrupted subband  $HH_2$  can be concealed by using uncorrupted coefficients ... from subbands  $LH_2$  and  $HL_2$ ).

Regarding **claim 2, 6, 10, 14, and 18** Chia teaches everything claimed, as applied above (see claim 1). In addition, Chia teaches "that the reconstruction means are arranged for reconstructing the second decoded frequency band signal from the first decoded frequency band signal by extending a bandwidth of the first decoded frequency band signal" (col. 5, lines 20-25; corrupted HH<sub>2</sub> can be concealed by using uncorrupted coefficients ... from subbands LH<sub>2</sub> and HL<sub>2</sub> [extending the bandwidth]).

Regarding **claim 4, 8, 12, 16, and 20**, Chai teaches everything claimed, as applied above (see claim 1). In addition, Chai teaches "the first frequency band signal and the first encoded frequency band signal and the first decoded frequency band signal are signals having a low frequency band and in that the second frequency band signal and the second encoded frequency band signal and the second decoded frequency band signal are signals having a high frequency band" (Fig. 2, col. 3, lines 28-35; col. 4, lines 14-23, lines 31-42; e.g., LL is a low frequency band, HH is a high frequency band, etc).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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2. Claims 3, 7, 11, 15 and 19 rejected under 35 U.S.C. 103(a) as being unpatentable over Chai in view of Zinser (U.S. Patent 5,384,793), hereinafter referred to as Zinser.

Regarding **claim 3, 7, 11, 15, and 19**, Chai teaches everything claimed, as applied above (see claim 1). As stated in the rejection of claim 1, Chai teaches that an adjacent subband can be used to repair a corrupted subband (col. 2, lines 9-27), but Chai does not specifically teach "that the reconstruction means are arranged for reconstructing a present frame of the second decoded frequency band signal from a present frame of the first decoded frequency band signal **and from a previous frame of the second decoded frequency band signal.**" However, the examiner contends that this concept was well known in the art, as taught by Zinser.

In the same field of endeavor, Zinser discloses an error protection method for dynamic bit allocation sub-band coding. Zinser teaches that energies from the previous frame can be combined with energies from the adjacent energies in the current frame for synthetic regeneration (col. 3, lines 8-16).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Chai by specifically providing features, as taught by Zinser, because it is well known in the art at the time of invention for the purpose of obtaining a better estimate by interpolating with information time [previous] as well as frequency [adjacent subband].

### ***Response to Arguments***

3. Applicant's arguments filed 9/8/05 have been fully considered but they are not persuasive.
4. Applicant asserts beginning on page 9:

As shown in Fig. 2 of the instant application, and as clearly described in the associated description, the instant invention as presently claimed is directed to a transmission system or method, or a component thereof, in which a single input signal on a single input line (18) is split into first and second encoded frequency band signals. *The Chai reference, on the contrary, is directed to a completely different form of apparatus operating on two completely different input signals (namely a video signal and an audio signal) for a substantially different purpose. More particularly, Chai expressly teaches, with respect to Fig. 2, that video data is provided on a first input line 210 and audio data is provided on a second separate input line 212.* It is respectfully submitted that all of the currently-pending claims, as herein amended (as in claim 1, for example, wherein a single input signal on a single input line is expressly recited) are clearly patentably distinguishable over the cited and applied reference. (Italics added)

In Column 3, line 54, Chai states that "the system may include an audio encoder ...", which indicates that the second input is optional. Thus, Chai teaches splitting up a single input signal on a single input line.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to V. Paul Harper whose telephone number is (571) 272-7605. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on (571) 272-7602. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

10/13/05

V. Paul Harper  
Patent Examiner  
Art Unit 2654



**RICHEMOND DORVIL**  
SUPERVISORY PATENT EXAMINER